Testimony Opposing the Lahaina POTW Wastewater Underground Injection Permit Renewal

November 6, 2008

Good evening, my name is Brooke Porter and I am speaking on behalf of Pacific Whale Foundation a Maui-based non-profit organization. We are opposing the permit application to continue injecting nitrogen-laden wastewaters into the near-shore environment off Lahaina.

According to a NOAA study, Hawaii's reef-related tourism and fishery activities generate $360 million annually for the state's economy. Covering 410,000 acres, Hawaii's reefs are valued at an estimated $10 billion. The degradation of the coral reefs and near shore waters around Maui threatens to impact not only tourism commerce, but also our local ways of life. Maui's coral reefs provide a destination to visitors, a barrier against the elements, they provide residents with recreational activities and allow others to practice sustenance gathering.

Studies show that in some areas around Maui our coral cover has diminished by 90% over the past decade. Resource Managers from Maui's DLNR presented scientific evidence of the decimation of Maui's near shore reefs to Maui audiences on June 19, 2008 and August 14, 2008. The presentations depicted an abnormal and rapid shift from a dominant coral cover to a dominant algal cover in areas near injection wells. Though not the only contributing factor to coral loss, these areas show significant correlation to injection well sites.

The hydraulic conductivity coupled with the differences in salinity between the injectate and the groundwater causes leaching of effluent into surrounding aquifers and coastal waters resulting in a buoyant plume that displaces other shoreward flowing ground water. According to a 2006 USGS model, groundwater discharging from the core of an injection plume is nearly 60% effluent at shore (Hunt, 2006). The high levels of nitrogen bearing nutrients found in effluent are pollutants and trigger algal blooms adversely affecting coral reefs. It is prudent that the Lahaina injection permit also meet permitting requirements defined under the Federal Clean Water Act and State Water Pollution Control Laws.

As a marine-centric organization, Pacific Whale Foundation's goal is to protect the valuable coral reefs and their dependent organisms and ecosystems. We ask that a proactive approach be taken and that "water reuse is recognized as an environmentally preferred method of disposing treated wastewater (effluent), when compared to the traditional disposal methods through outfalls and injection wells," as stated in the 2004 Hawaii Water Reuse Survey and Report prepared for Hawaii DNLR,– Final Draft, (2005), p. 7.

To date the County has failed to bear the necessary burden of proof required by the permit application that the continued injection of wastewater will not result in releases of

nitrogen-bearing nutrients and other water pollutants, harm coral reefs, or impair commerce and tourism. The County has also failed to demonstrate that the continued injection will yield significantly lower costs and higher benefits for the citizens of the county when compared to phasing out injection in favor of wastewater reuse for agricultural and ornamental irrigation, fire prevention, stream flow restoration and replenishment, and other purposes.

Simply stated, the County has not adequately explored all the possible uses of wastewater effluent. Knowing that wastewater injection wells pose serious threat to near shore waters and coral reefs, we ask that the permit application be denied and that the EPA requires wastewater to be treated to an R-1 level and water reuse strategies are prioritized over the dated method of injection wells.
References:

Cesar, H., Van Beukering, P., Pintz, S. & Dierking, J. 2002. Economic valuation of the coral reefs in Hawaii. NOAA - Cesar Environmental Economics Consulting.

Hawaii DNLR. 2005. 2004 Hawaii Water Reuse Survey and Report –p. 7.

Hunt, C.D. 2006. Ground-Water Nutrient Flux to Coastal Waters and Numerical Simulation of Wastewater Injection at Kihei, Maui, Hawaii. Island of Maui, Hawaii: U.S. Geological Survey Scientific Investigations Report 2006-5283, 69 p.